SDC SYSTEM DEVELOPMENT CORPORATION

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Mr. T. Nelson
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Commercial Systems Division
SYSTEM DEVELOPMENT CORPORATION
2500 Colorado Avenue, Santa Monica, California 90406

September 4, 1968
L-12222

Mr. T. Nelson
Box 1546
Poughkeepsie, New York 12603

Dear Mr. Nelson:

Thank you for your inquiry about SDC's JOVIAL compiler for operation under Version 14 of IBM OS/360. The enclosed JOVIAL J5.2 Compiler Data Sheet describes the features of this compiler.

Should you have any technical questions or desire a quotation in accordance with the Terms and Conditions described on the Data Sheet, please contact me at the above address or at (213) 393-9411. I would also be very pleased to discuss with you SDC's other products and services in compilers, time-sharing, data management, and related data processing fields.

Very truly yours,

James P. Keller

James P. Keller
Marketing Representative

JPK/lb

Encl.

SDC **DATA SHEET**

JOVIAL J5.2 COMPILER

JOVIAL is a general-purpose, relatively machine-independent, procedure-oriented language developed by SDC. It is a programming language that describes data processing in terms of the logical operations required.

JOVIAL J5.2 is both an extension of Basic JOVIAL and a compatible subset of the J3 JOVIAL language adopted by the Air Force as the standard procedure-oriented language for command/control applications. The J5.2 Compiler has been designed specifically as a fully integrated program to operate under Version 14 of IBM OS/360.

Technical:

- Machine Requirements:
  IBM System 360, Models 40, 50 and 65
  -H Configurative (262K bytes)
- Peripheral Requirements (minimum):
  2—2311 Model 1 disk storage units or equivalent
  1—card read punch
  1—printer
- Language Structure: The JOVIAL J5.2 Compiler includes the following significant additions and changes to Basic JOVIAL:

1. A name is limited to 8 rather than 6 letters and numerals.
2. Hollerith values are coded in EBCDIC.
3. The signs : ? ← ; < > are also included in the meaning of *Hollerith.*
4. *Fixed* is extended to apply to *variables, constants,* and *functions,* as well as *formulas.*
5. Independently compiled *procedures* may be referenced in the *program.*
6. *Floating* exponents are permitted, but complex arithmetic is not defined.
7. All programs operate under control of the operating system. Therefore, the *stop:statement* that references a *statement:name* is not permitted in J5.2.
8. The system supplies the location for all compiled programs; therefore, *origins* are not permitted.

Limits and Operating Parameters:

	Numeric Values
maximum bits in a *literal:item*	2048
maximum bytes in a *literal:item*	256
maximum words in a *literal:item*	64
bits per word	32
bits per signicand in a *floating:item*	25
maximum number of *octal:numerals* in a *numeric:octal:constant*	11
bits per exrad in a *floating:item*	7
bytes per word	4
bits per byte	8
maximum bits in an *integer:item* or a *fixed:item*	32
number of bits in a *floating:item*	32
number of bits in a basic addressable unit	8

Standard Subroutines:

Conversion Procedures

FROM \ TO	Decimal	Hexadecimal	Floating	Hollerith Item	Packed Hollerith	Signed Integer	Octal	Binary
Packed Hollerith			X	X		X	X	
Signed Integer					X			
Hollerith Item					X			
Hexadecimal					X			X
Floating Point					X			
Octal					X			
Binary	X	X					X	

General Procedures
- Sort Single Word Entries
- Sort Multiple Word Entries

Trigonometric Procedures
- Sine
- Cosine
- Tangent
- Cotangent
- Arc-sine
- Arc-cosine
- Arc-tangent

Other Mathematical Procedures
- Integer Divide
- Square Root
- Compute e^x
- Hyperbolic Sine
- Hyperbolic Tangent
- Hyperbolic Cosine
- Natural Logarithm

Terms and Conditions:

The JOVIAL J5.2 Compiler is available only as a package, which includes the following:

1. Magnetic tape containing the compiler and standard subroutines.
2. User documentation, including language specification and reference manual.
3. Installation of the Compiler by SDC personnel at the customer's facility.
4. (Optional) Training of customer personnel in the use of the Compiler.

The cost of this package will depend upon installation location and the extent of services required.

Official requests for quotation should include the location of the installation, the required operational date and an outline of the support services desired and should be signed by a duly authorized company officer. For further information, contact Commercial Marketing.

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